

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 **Claim 1** (Currently amended): Method of carrying
2 out a three phase chemical reaction under pressure that
3 involves a gas phase and two non-gaseous phases, at least
4 one of which is liquid, said method comprising the
5 following steps:
6 circulating, in a closed loop and co-currently
7 two non-gaseous phases, in a reactor, by injection of the
8 gas phase into the bottom of a central region of the
9 reactor, in a way that creates an ascending circulation
10 in said central region and a descending circulation in
11 the annular region of the reactor, separated from the
12 central region by a cylindrical partition;
13 separation and recovery, in an upper region of
14 the reactor, of ~~the~~ excess gas phase and a liquid
15 fraction;
16 separate routing of the excess gas phase and
17 the liquid fraction into a ~~high-pressure~~ separator
18 outside the reactor; and
19 regulation of the pressure in the reactor and
20 the level in the ~~high-pressure~~ separator, by adjustment

21 of a gas flow rate and a liquid flow rate leaving the
22 ~~high pressure~~ separator.

1 **Claim 2** (Original): Method according to Claim 1,
2 in which the liquid fraction in said upper region is
3 recovered through a lateral branch pipe positioned behind
4 a profiled wall that inflects the circulation towards the
5 annular region of the reactor and the liquid fraction is
6 filtered at the inlet to said branch pipe.

1 **Claim 3** (Currently amended): Method according to
2 Claim 1, in which said ~~gaseous gas~~ and ~~non-gaseous~~
3 non-gaseous phases are cooled inside the reactor.

1 **Claim 4** (Currently amended): Method according to
2 Claim 1, in which said ~~gaseous gas~~ and ~~non-gaseous~~
3 non-gaseous phases are heated inside the reactor.

1 **Claim 5** (Original): Method according to Claim 1,
2 in which a reducing reaction is carried out on a liquid
3 product under pressure using a gaseous reducing agent, in
4 the presence of a solid catalyst.

1 **Claim 6** (Original): Method according to Claim 5,
2 in which the solid catalyst is periodically regenerated
3 inside the reactor, by carrying out the following steps:

- 4 - discharge of the liquid phase;
- 5 - filling the reactor with water;
- 6 - sparging with an inert gas, for a specified
- 7 time;
- 8 - emptying the water.

1 **Claim 7** (Original): Method according to Claim 5,
2 in which the reduction reaction carried out is the
3 reduction of uranyl nitrate by hydrogen in the presence
4 of platinum on a silica carrier.

1 **Claim 8** (Withdrawn): Installation for carrying
2 out a three phase chemical reaction under pressure, that
3 involves a gaseous phase and two non-gaseous phases, at
4 least one of which is liquid, said installation
5 comprising:
6 - a reactor including a central region and an
7 annular region, separated by a cylindrical partition,
8 means for injecting the gaseous phase into the bottom of
9 the central region, to create closed loop and co-current
10 circulation of the two non-gaseous phases, ascending in
11 the central region and descending in the annular region;
12 said reactor further including an upper region for the
13 separation and recovery of the excess gas phase and a
14 liquid fraction;

15 - a high pressure separator outside the reactor
16 and connected to the upper region of the reactor, so as
17 to separately route the excess gas phase and the liquid
18 fraction into the separator; and
19 - means of adjusting a gas flow rate and a
20 liquid flow rate leaving the high pressure separator, so
21 as to regulate the pressure in the reactor and the level
22 in the high pressure separator.

1 **Claim 9** (Withdrawn): Installation according to
2 Claim 8, in which a lateral branch pipe for recovering
3 the liquid fraction emerges into the upper region of the
4 reactor, behind a profiled wall installed in said upper
5 region in such a way that the circulation is inflected
6 towards said annular region of the reactor, filtering
7 means being placed at the inlet to the branch pipe.

1 **Claim 10** (Withdrawn): Installation according to
2 Claim 8, in which cooling means are fitted at least to
3 the cylindrical partition of the reactor.

1 **Claim 11** (Withdrawn): Installation according to
2 Claim 8, in which heating means are fitted at least to
3 the cylindrical partition of the reactor.